UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 29, 2020

<u>Via Delivery as Email-attachment</u>

Mr. Prashant K. Gupta
Honeywell, Inc.
115 Tabor Road
Morris Plains, NJ 07950

    Re: CO2 Sparging Phase 4 Full Implementation and Monitoring Report dated December 20,
        2019: OU2 (Mercury Cell Buildings and Groundwater): LCP Chemicals National Priorities List
        Site, Brunswick, Glynn County, GA

Dear Mr. Gupta:

The purpose of this letter is to comment on your submission of the Co-location of Dioxins/Furans and
Aroclor 1268 Memorandum, Revision 1 (Co-location Memo) dated February 2019 for the LCP
Chemicals Site Operable Unit 1 in Brunswick, Georgia. The EPA is requiring revisions to the Co-
location Report. The attached comments must be addressed, and the document revised, before full
approval of the Co-location Memo will be considered. Responses to the comments must be submitted
to EPA within 30 days from receipt of this letter.

If you have questions regarding the preceding, please contact me at (404) 562-8935.

                          Sincerely,

                          Pamela J Langston Scully
                          Superfund Restoration & Sustainability Branch
                          Superfund & Emergency Management Division

Enclosure

cc:

ED_006371_00000075-00002

TECHNICAL REVIEW OF THE
CO-LOCATION OF DIOXINS/FURANS AND AROCLOR 1268 MEMO
DATED FEBRUARY 2019

LCP CHEMICALS SITE
BRUNSWICK, GEORGIA

I. GENERAL COMMENTS

1. The Co-location Memo does not adequately show the cleanup of Aroclor 1268 will be protective for PCDDs and PCDFs. Section 13.2.2 Confirm Co-Location of PCDDs and PCDFs with Aroclor 1268 of the ROD states:

    Existing PCDD/PCDF and Aroclor 1268 sediment data support the conclusion that the PCDDs and PCDFs are co-located with Aroclor 1268. Sufficient sampling in Domains 1, 2 and 3 will be undertaken during the Remedial Design phase to confirm that the PCDDs and PCDFs are co-located located with the Aroclor 1268. In the event that they are not co-located, a ROD Amendment may be required.

    In addition, the Remedial Design Work Plan dated April 2018 states that the proposed sampling sites were designed to address the objective of confirming that remediating the former Aroclor 1268 will reduced dioxin furan concentration to acceptable levels.

    The extent of the Aroclor contamination and proposed remediation should be shown with the Dioxin TEQ results to demonstrate that the cleanup of Aroclor 1268 is protective for PCDDs and PCDFs. The 2018 split sample results and historical data should be included. Visualization of the data would be helpful.

2. The data set for the statistical analysis may contain two populations that have different relationships— low vs. high concentration data. Rather than analyzing the data as Cases 1 to 3 with each case divided into two parts, the data with low-concentration population and high-concentration population specific to Aroclor 1268 should be analyzed. In addition, establishing trendlines with confidence and prediction bands may be helpful.

3. Establishing the relationship with the PCDD/PCDF mass-based statistics is sufficient; however, the objective is about the protection of health and the environment. Therefore, the results of statistical analysis should be discussed in terms of Dioxin TEQ.

II. SPECIFIC COMMENTS

1. **Section 4.2, Dioxin TEQ Relative to Preliminary Remedial Goal, Page 11:** This section should address if the the cleanup of Aroclor 1268 be protective of the Dioxin TEQ. Also, this section only includes Dioxin TEQ for samples collected in 2018 by EPS. The comparison should include the 2018 split sample results collected by EPA and the historical data.

    To help the narrative, add a figure that combines the selected remedy, shown on Figure 8, and the PCDD, PCDF, and dioxin TEQ results, shown on Figure 9, highlighting those exceedances of the Dioxin PRG. It would (or need to) show that the high dioxin TEQ concentrations are addressed by the RA.

2. **Section 5.1.1.2 General Assumptions of Regression Analysis, 3rd bullet, 2nd paragraph, Page 14:** In terms of heteroscedasticity, the data set may contain two populations that have different relationships. Lower concentration samples may be minimally impacted by site contamination. Higher concentration samples may be more effectively considered as a separate population.

3. **Section 5.1.1.4, Cook's Distance Analysis, 2nd paragraph, Page 15:** The outlier data should be included in the analysis because they are real data. As suggested above, it makes more sense to separate the data as low and high concentration data. The screenshot shows an example of possible correlation with low concentrations and high concentrations along with the identified outliers.

Case 1b: Co-location of Furan Congener Concentration and Aroclor 1268 (Co-location Study Data)
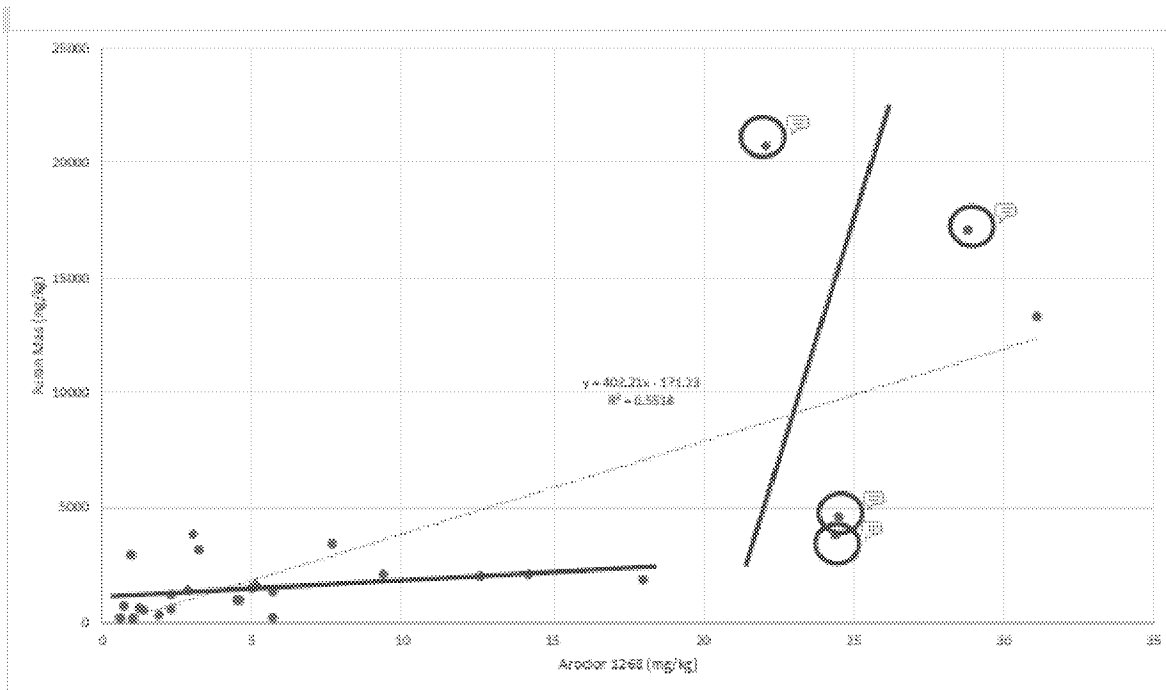
4. **Section 5.2, Results of the Co-location Analysis:** The current section 5.3 does not adequately support the summary and conclusion presented in Section 6. See General Comment No. 2/

Visualization of the data would be helpful. The ideal figure would show the relationship between Aroclor concentrations and Dioxin TEQ (with no outliers removed), the threshold for removal based on Aroclor, and what level of Dioxin TEQ removal would be implied/estimated. An example is shown below.

Aroclor 1268 (mg/kg)

Aroclor Exceedances
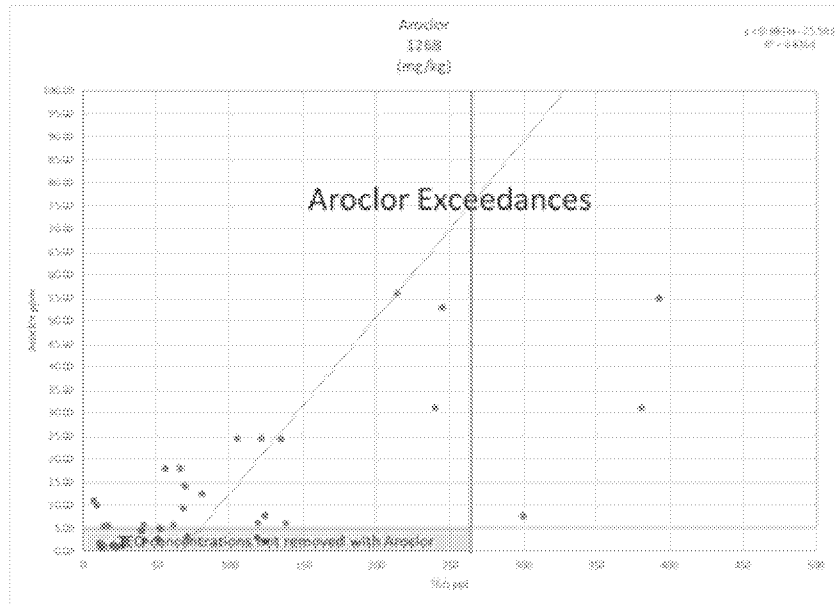
5. **Section 5.3, 95% UCL of PCDD/F TEQ:** This section should be removed. The use of 95% UCL of Dioxin TEQ for this memo is inappropriate.